

We claim:

1. A solid-state image sensor, comprising: plural pixels arrayed in a matrix and storing charges in proportion to amount of incident light; and a gain  
5 variable amplifier amplifying pixel signals sequentially read from the plural pixels at a fixed cycle time, an amplification factor of which can be varied, and being able to set a storage time during which the plural pixels store charges to an arbitrary value in a time range  
10 narrower than a period of the fixed cycle time, wherein the sensor comprises: a brightness/illumination flicker detection section detecting brightness and illumination flicker of an incident light image; and a control section varying the amplification factor of the gain variable  
15 amplifier in accordance with the detected brightness and a set value of the storage time as well as varying the storage time step by step to either of plural flicker-less times at which the illumination flicker is not caused in accordance with the detected brightness and the  
20 illumination flicker.

2. The solid-state image sensor, as set forth in claim 1, wherein the control section sets the storage time to  $n/100$  sec ( $n$  is a positive integer) when the illumination flicker detected by the  
25 brightness/illumination flicker detection section has a light emission period corresponding to the case where a fluorescent lamp is lit at 50Hz.

3. The solid-state image sensor, as set forth in claim 1, wherein the control section sets the storage  
30 time to  $n/120$  sec ( $n$  is a positive integer) when the illumination flicker detected by the brightness/illumination flicker detection section has a light emission period corresponding to the case where a fluorescent lamp is lit at 60Hz.

35 4. The solid-state image sensor, as set forth in claim 1, wherein the brightness/illumination flicker detection section detects average luminance of the pixel

signal for each frame in fixed average luminance  
detection areas assigned in a frame, calculates a  
difference in the average luminance between frames, and  
judges whether the illumination flicker is caused by a  
5 fluorescent lamp lit at 50Hz or 60Hz from the calculated  
difference in the average luminance.